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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/486,723	05/18/2000	MICHAEL LAMLA	JEK/LAMLA	2431
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BACON & THOMAS 625 SLATERS LANE 4TH FLOOR ALEXANDRIA, VA 22314-1176			EXAMINER PICH, PONNOREAY	
			ART UNIT 2135	PAPER NUMBER

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/486,723

Applicant(s)

LAMLA ET AL.

Examiner

Ponnoreay Pich

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 1-14 are pending. Applicant's amendments have been noted. Any objections or rejections not repeated below for record are withdrawn due to applicant's amendments and/or arguments.

#### ***Response to Arguments***

Applicant's arguments have been fully considered, but are moot in view of new grounds of rejections presented below.

#### ***Claim Objections***

Claim 12 is objected to because of the following informalities: In claim 12, "as" in line 2 should be "has". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Claims 4 and 5 recites "the ISO standard". One skilled should appreciate that there are many ISO standards, so it is unclear to which ISO standard is being referred in claims 4 and 5.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1, 8-10, 12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Saliba (US 5,894,425).

**Claim 1:**

Saliba discloses:

1. Providing a first bidirectional channel for transmitting signals having signal patterns between the data carrier and the external device (Fig 1 and col 5, lines 27-35, 44-45).
2. Providing a second bidirectional transmission channel logically separated from the first bidirectional transmission channel, the separation of the first and second bidirectional transmission channels being so designed that data transmission via one bidirectional transmission channel does not interfere with data transmission via the other bidirectional transmission channel and the second bidirectional transmission channel is activable during the total time period between activation and deactivation of the data carrier (Fig 1 and col 5, lines 27-35, 44-45).

3. Having the data carrier generate a signal required for authenticity testing (col 6, lines 17-64).
4. Transmitting the signal for authenticity testing from the data carrier to the external device or a signal required for generating the signal for authenticity testing from the external device to the data carrier at least partly via the second bidirectional transmission channel (col 6, lines 17-64).
5. Having the external device receive the signal for authenticity testing, and deciding on the basis of the received signal whether the data carrier is authentic (col 6, lines 17-64).

The examiner is applying two interpretations to what it means for a channel to be logically separated. The examiner note that logical separation of a channel as applicant's specification discloses is achieved via modulation of one physical channel. However, one skilled should appreciate that if there were two separate physical channels then the logic utilized to control data transmission in one channel is different and separate from the logic used to control data transmission in the other channel. Since applicant does not recite in claim 1 how logical separation of the channels is achieved, more than one interpretation of logical separation applies to claim 1.

In Saliba's invention, Fig 1 shows the PDA 50 having at least two separate transmission channels. One of the channels is a radio/cellular communication channel and two are IR channels. One skilled should appreciate that the logic used to control IR transmissions is different than the logic used to control radio/cellular transmissions, thus

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the two channels utilized by PDA 50 disclosed by Saliba are both physically and logically separated from each other. Further, the PDA is shown having a built in IR device and IR provided via an external card 53. One skilled should appreciate that the logic which controls the IR transmission of the external device is different than that logic which controls the built-in IR device of the PDA.

The examiner has also included a rejection of claim 1 below wherein the examiner interprets logical separation as achieved by modulating one physical channel so that it can function as two channels.

**Claim 8:**

Saliba discloses:

1. Providing a first bidirectional transmission channel for transmitting signals between the data carrier and the external device (Fig 1 and col 5, lines 27-35, 44-45).
2. Providing a second bidirectional transmission channel physically separated from the first bidirectional transmission channel and comprising at least one line or contactless transmission path not provided according to the ISO standard, the second bidirectional channel being activable during the total time period between activation and deactivation of the data carrier (Fig 1 and col 5, lines 27-35, 44-45).
3. Having the data carrier generate a signal required for authenticity testing (col 6, lines 17-64).

4. Transmitting the signal for authenticity testing from the data carrier to the external device or a signal required for generating said signal for authenticity testing from the external device to the data carrier at least partly via the second bidirectional transmission channel (col 6, lines 17-64).
5. Having the external device receive the signal for authenticity testing, and deciding on the basis of the received signal whether the data carrier is authentic (col 6, lines 17-64).

**Claim 9:**

Saliba further discloses the contactless transmission path is realized by transmitting the data as electromagnetic, electrostatic, magnetic, acoustic or optical signals (Fig 1 and col 5, lines 27-35, 44-45).

**Claim 10:**

Saliba further discloses that a mixture of wavelengths is used for transmission via the contactless transmission path (col 6, lines 20-21). Use of synch patterns implies a mixture of wavelength used in transmission.

**Claim 12:**

Saliba discloses:

1. The data carrier has a first device for generating signals for data exchange between the data carrier and the external device, and the first device is adapted to be coupled to a first bidirectional channel (Fig 1, item 54).
2. The data carrier has a second device for generating signals required for authenticity testing of the data carrier, and the second devices is adapted to be

coupled to a second bidirectional transmission channel and connected with the first device (Fig 2, item 52).

3. The first and second bidirectional transmission channels are separated logically or physically (Fig 1, items 54 and 52).
4. Data exchanged with the second device does not interfere with data exchanged with the first device, and the second device is ready for generating signals for authenticity testing of the data carrier during the total time period between activation and deactivation of the data carrier (col 5, lines 27-35, 44-45).

The first device exchanges data via radio/cellular waves while the second exchanges data via IR. One skilled should appreciate that IR does not interfere with radio/cellular waves.

**Claim 14:**

Saliba discloses:

1. A data carrier with a first device for generating signals for data exchange with the external device and a second device for generating and/or processing signals for authenticity testing (Fig 1, item 50).
2. An external device with a first device for generating signals for data exchange with the data carrier and a second device for generating and/or processing signals for authenticity testing (col 4, lines 49-56 and col 6, lines 17-64).



3. A first bidirectional transmission channel for transmitting signals between the first device of the data carrier and the first device of the external device (Fig 1, item 54 or item 52).
4. A second bidirectional transmission channel for transmitting signals between the second device of the data carrier and the second device of the external device (Fig 1, item 52, note that there are two separate items 52 in Figure 1), the first and second bidirectional transmission channels being separated logically or physically and the separation of the first and second bidirectional transmission channel does not interfere with data transmission via the other bidirectional transmission channel, and the second bidirectional transmission channel being activable during the total time period between activation and deactivation of the data carrier (col 5, lines 27-35, 44-45).

Note that there is another bidirectional transmission channel that uses radio/cellular waves. One skilled should appreciate that IR does not interfere with radio/cellular waves.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saliba (US 5,894,425) in view of Ehrat (US 3,806,874).

**Claim 1:**

Saliba discloses:

1. Providing a first bidirectional channel for transmitting signals having signal patterns between the data carrier and the external device (Fig 1 and col 5, lines 27-35, 44-45).
2. Providing a second bidirectional transmission channel separated from the first bidirectional transmission channel, the separation of the first and second bidirectional transmission channels being so designed that data transmission via one bidirectional transmission channel does not interfere with data transmission via the other bidirectional transmission channel and the second bidirectional transmission channel is activable during the total time period between activation and deactivation of the data carrier (Fig 1 and col 5, lines 27-35, 44-45).
3. Having the data carrier generate a signal required for authenticity testing (col 6, lines 17-64).
4. Transmitting the signal for authenticity testing from the data carrier to the external device or a signal required for generating the signal for authenticity testing from the external device to the data carrier at least partly via the second bidirectional transmission channel (col 6, lines 17-64).

5. Having the external device receive the signal for authenticity testing, and deciding on the basis of the received signal whether the data carrier is authentic (col 6, lines 17-64).

As noted above, the examiner is applying two interpretations to the what it means for two channels to be logically separated. Saliba does not disclose the second bidirectional transmission channel is logically separated from the first bidirectional transmission channel (in the sense that separation is achieved via modulation of a single transmission channel). However, Ehrat discloses one physical channel being modulated so that two separate bidirectional logical radio channels are achieved (col 4, lines 51-56 and col 6, lines 13-36). Note that in the cited passages, Ehrat discloses that transmission can occur simultaneously in both directions, thus transmission on one logical channel does not interfere with transmission on the other logical channel.

At the time applicant's invention was made, it would have been obvious to one skilled in the art in light of Ehrat's teachings to modify Saliba's invention according to the limitations recited in claim 1 by modulating either the radio/cellular channel or the IR channel into two logically separate bidirectional channels. One skilled would have been motivated to modulate the IR channel to achieve two logically separated bidirectional channels because it would allow the PDA to communicate with more than one storage devices located in computer 12 at the same time, thus information could be gathered more quickly from the storage devices and updates could be uploaded to the storage devices more quickly. Likewise, one skilled would have been motivated to modulate the

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radio/cellular channel into two logically separate bidirectional channels at the same time because then the PDA would be able to communicate with two separate host devices at the same time. This allows the PDA to obtain further information from host devices more quickly and relay information from the storage device for further analysis more quickly.

Note that from Ehrat's teachings one could further modify Saliba's invention such that instead of using an IR channel to communicate with the storage devices in computer 12, one could modify the drives such that they communicated with the PDA via a radio/cellular channels instead. One radio/cellular channel would still be used to communicate with a host computer while other radio/cellular channels could be used to communicate with the storage devices. One skilled would have been motivated to do so because using a radio/cellular channel would increase the range that the PDA can communicate with the drives since radio/cellular signals travel further distances than IR signals without being corrupted and aren't as easily blocked.

**Claim 2:**

Ehrat further discloses the second bidirectional transmission channel is provided by modulating the signal of the first bidirectional transmission channel (co 6, lines 13-36).

**Claim 3:**

Ehrat implicitly discloses the modulation does not impair an ISO compatibility of data exchange between the data carrier and the external device existing for the first bidirectional transmission channel (col 6, lines 33-35). Ehrat discloses that duplex

transmission operates with two different transmission frequencies so that transmissions occur simultaneously in both directions. Thus, any ISO compatibility that may exist for the first bidirectional transmission channel would not be affected by the modulation to achieve the second channel.

**Claim 4:**

Saliba and Ehrat implicitly disclose modulation is performed in areas of the signal pattern which are not evaluated according to the ISO standard (Saliba: col 6, lines 47-64). One skilled should appreciate that there are many ISO standards and many which do not address password or password formats, thus the password sent are not evaluated according to at least one ISO standard. Modulation was taught by Ehrat.

**Claim 5:**

Saliba does not explicitly disclose the changes caused by modulation in the signal of the first bidirectional transmission channel are within range of variation of the signal level permitted by the ISO standard. However, modulation of signals of a transmission channel within range of variation of the signal level as permitted by the ISO standard was well known in the art at the time applicant's invention was made.

At the time applicant's invention was made, it would have been obvious to one skilled to further modify Saliba's invention such that the modulation of the signal of the first bidirectional transmission channel conform with the range of variation of the signal level permitted by the ISO standard. One skilled would have been motivated to do so for safety reasons—part of the reason the ISO standard was developed was to ensure

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the safety of products. Modulating beyond a certain range could yield a product that is to be dangerous to be around.

**Claim 6:**

Ehrat further discloses that modulation and demodulation of the signal are performed in the data carrier and in the external device with the aid of a mixing/demixing device in each case (col 6, lines 25-32). Modulators and demodulators are mixing and demixing devices.

**Claim 7:**

Saliba further discloses the first bidirectional transmission channel is a line for transmitting standard data or a line for transmitting a clock signal or a line for supply voltage (col 5, line 65-col 6, line 1).

**Claim 11:**

As per claim 11, the limitation recited is obvious to the combination invention of Saliba and Ehrat. One skilled should appreciate that if the data carrier and the external device cannot exchange data, then the external device cannot receive the authentication data to verify the data carrier is authentic, thus the decision on authenticity of the data carrier is contingent on whether data exchange is possible between the devices to which the first and second transmission channels are coupled to the data carrier.

**Claim 13:**

Saliba does not explicitly disclose the first device and the second device are each coupled to the bidirectional transmission channels via a mixing/demixing module.

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However, Ehrat discloses a transmission devices coupled to bidirectional transmission channels via a mixing/demixing module, i.e. multiplexer/demultiplexer (col 6, lines 13-32).

At the time applicant's invention was made, it would have been obvious to one skilled in the art to modify Saliba's invention according to the limitations recited in claim 13. One skilled would have been motivated to do so because data transmitted are usually multiplexed before transmission and demultiplexed upon receipt.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Fri.

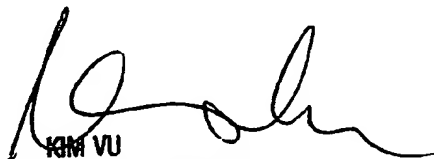
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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